



Fact Sheet

Updates to Storm Water Quality Standards in the City of San Diego Land Development Manual



Land Development Design Requirements Interim Hydromodification Criteria

Introduction

The California Regional Water Quality Control Board issues a storm water discharge permit (Permit) to the City of San Diego. The Permit is under the auspices of the National Pollutant Discharge Elimination System and the U.S. Environmental Protection Agency. The overall goal of the Permit is to reduce the amount of pollutants carried by storm water runoff that enter the City's storm water system. San Diego's storm water system is a combination of pipes and channels that carry runoff to streams, bays, and the Pacific Ocean. Storm water does not go to a final treatment facility before entering these waterways and the ocean.

Why is the Land Development Manual being updated?

The City is in the process of updating its Land Development Manual (Manual) to be consistent with revisions made to the Permit in January 2007. The Manual includes requirements and guidelines for how new construction must be managed and also what measures must be in place at a structure or facility after construction is completed for long term reduction of storm water pollution at the site. Public input is important and valued so that the City can consider viewpoints and ideas on the updates to achieve the goal of reducing storm water pollution and compliance with Permit requirements. The permit lists **interim hydromodification criteria** as a requirement.

What is Hydromodification?

Developments, structures, buildings, roadways, etc. that cover the natural ground with hard surfaces such as paved areas, increase the amount of storm water runoff into the system. Hard surfaces do not allow rain water to soak into the ground and the runoff is diverted into the storm drains. This increased runoff has an effect on an area's watershed. Increased amounts and rates of storm runoff can cause increased stream erosion and more sediment moving through the stream. These alterations to a stream can also cause declines in the biological health and physical habitat of the stream. This change in the watershed is referred to as "hydrologic modification" or "hydromodification."

What is the interim hydromodification criteria?

The interim hydromodification criteria is a set of requirements addressing runoff rates and durations. This criteria must be in place by January 2008, and will address storm water runoff controls. The interim hydromodification criteria will be in place prior to a more comprehensive approach to hydromodification and development of a Hydromodification Management Plan, which will be effective approximately two years later.

Only certain types of development projects will be subject to the interim hydromodification criteria. The project must be categorized a "Priority Development Project," according to the definition provided in the Permit. It must also be 50 acres in size or greater. The Permit has a provision that does not require certain projects to follow this new requirement, if a lawful prior approval permit exists.

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The Permit exempts projects in three categories:

- if discharging to a paved or hardened channel
- if discharging to an underground storm drain discharging directly to the bay or ocean,
- if discharging to a channel where the watershed upstream of this point is highly impervious (does not allow water to easily soak into the ground)

How can the hydromodification effect of a project be reduced?

A project can be designed to incorporate features that will reduce the hydromodification effect created by the project. These features reduce runoff by either promoting storm water infiltration (soaking in) into the soil, or detaining the water onsite and releasing it at slower rate into the storm drain system. Many of these project designs are classified as Low Impact Development (LID) features. The intent of this regulation in the Permit is not necessarily to prescribe the use of LID methods; but rather to focus on establishing performance standards for reducing a completed project's runoff rates and durations of runoff from the developed site. This type of performance standard can be addressed using predictive analysis.

What is the City of San Diego required to do?

By January 2008, the City must identify a range of runoff rates (flow rates) that are likely to cause a significant negative effect on waterways downstream of a project. The flow rates of storm water runoff vary with the size of storm. The negative impacts caused by hydromodification are more severe within a certain range of flow rates. The City will be working collectively with the other jurisdictions in San Diego County to establish the lower and upper limits of the range of flow rates. In establishing this range, the City and other jurisdictions will need to consider whether the increased flows in this range are likely to cause erosion or have other harmful impacts to the health and physical habitat of a body of water receiving the runoff.

How are applicants for a development permit affected?

A development permit applicant will need to show compliance with the hydromodification criteria. There is a certain minimum and maximum size storm event that will need to be considered by an applicant when submitting information to show that the runoff rates and durations are below acceptable levels. Showing a reduction in storm water runoff rates from a project site typically requires some method of predictive analysis. In order to assure that actual runoff rates from the project are sufficiently reduced, the development permit reviewing department must set rules or guidelines as to what methods are acceptable.

References

Regional Water Quality Control Board Storm Water Discharge Permit for the City of San Diego
http://www.waterboards.ca.gov/sandiego/programs/sd_stormwater.html

City of San Diego Land Development Manual
<http://www.sandiego.gov/development-services/industry/landdevmanual.shtml>

www.ThinkBlue.org

(Please see photo on following page.)

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Waterway during high flow period